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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,686	08/11/2003	Han-Tu Lin	ADTP0093USA	1685
27765	7590	07/12/2004	EXAMINER	
NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE) P.O. BOX 506 MERRIFIELD, VA 22116			NGUYEN, THANH T	
			ART UNIT	PAPER NUMBER
			2813	

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/604,686	LIN ET AL.	
	Examiner	Art Unit	
	Thanh T. Nguyen	2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 12, 13, 17-19 and 24 is/are rejected.
- 7) ☒ Claim(s) 5-11, 14-16 and 20-23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Oath/Declaration

Oath/Declaration filed on 8/11/03 has been considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 12-13, 17-19, 24 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 10/249,218 (publication 2004/0119072) which has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

Referring to figures 1-9, Lee et al. teaches a method for forming a thin film transistor (TFT) of an organic light emitting display (OLED), the method comprising the steps of:

Providing a substrate (40);

Art Unit: 2813

Depositing a first metal layer (42) on the substrate;

Performing a first photo-etching-process (PEP) to remove a portion of the first metal layer to form a gate of the TFT on the surface of the substrate (see figure 5, and claim 1);

Forming a gate insulating layer (44) on the gate;

Performing a surface treatment to the surface of the gate insulating layer (see paragraph 17 and claim 1);

Forming a microcrystalline silicon layer (called crystalline silicon, 48, see paragraph# 17, claim 1 and 8) on the gate insulating layer;

Forming an amorphous silicon layer (50) on the microcrystalline silicon layer;

Forming a doped n⁺ layer (52) on the amorphous silicon layer;

Performing a second PEP (see figure 7, paragraph# 18) to remove a portion of the doped n⁺ layer, the amorphous silicon layer, and the microcrystalline silicon layer;

Forming a second metal layer (56) on the substrate;

Performing a third PEP (see figure 8, paragraph# 18) to form a source and a drain (58, see paragraph# 18) of the TFT on the surface of the substrate, and simultaneously to remove a portion of the doped n⁺ layer to expose the amorphous silicon layer (see figure 8);

Forming a passivation layer (62, see figure 9) on the substrate.

Regarding to claims 2, 17, substrate is selected from the group consisting of glass, quartz, and plastic (see paragraph# 16, and claim 2).

Regarding to claims 3, 18, the first metal layer and the second metal layer are composed of W, Cr, Al, Cu, Mo, or an alloy of any of the above material (see paragraph# 16, and claim 3).

Art Unit: 2813

Regarding to claims 4, 19, gate insulating layer formed with PECVD process, the gate insulating layer comprising SiO_x, SiN_y, or SiON (see paragraph# 16, and claims 4-5).

Regarding to claims 12, 24, passivation layer comprises silicon oxide or silicon nitride (see paragraph# 19, and claim 4)

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 12-13, 17-19, 24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 10/249,218. Although the conflicting claims are not identical, they

Art Unit: 2813

are not patentably distinct from each other because both the present invention and the copending application teach a method for forming a TFT of an OLED comprising the steps of: providing a substrate, depositing a first metal layer, performing a first PEP, forming a gate insulating layer, performing a surface treatment, forming a microcrystalline silicon layer, forming an amorphous silicon layer, forming a doped n⁺ layer, performing a second PEP, forming a second metal layer, performing a third PEP to form a source and drain, and simultaneously to remove a portion of the doped n⁺ layer for exposing the amorphous silicon layer, and forming a passivation layer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 5-11, 14-16, 20-23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Nguyen whose telephone number is (571) 272-1695, or by Email via address Thanh.Nguyen@uspto.gov. The examiner can normally be reached on Monday-Thursday from 6:00AM to 3:30PM.

Art Unit: 2813

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, Jr., can be reached on (571) 272-1702. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956 (**See MPEP 203.08**).



Thanh Nguyen
Patent Examiner
Patent Examining Group 2800

TTN